

In the Claims

1. (Previously amended) An article comprising diamond deposited on a non-metallic framework material substrate having a porosity sufficient to permit the flow of fluids in at least one direction through the material.

2. (Original) The article of claim 1 wherein said framework material substrate comprises a material compatible with a diamond deposition process.

3. (Original) The article of claim 1 wherein said framework material substrate comprises a material incompatible with a diamond deposition process coated with a material compatible with a diamond deposition process.

4. (Original) The article of claim 1 wherein said diamond has a thickness of at least about 2 microns.

5. (Original) The article of claim 1 wherein said diamond is fully coalesced.

6. (Previously amended) An article comprising diamond deposited on a non-metallic open-cell foam substrate having a porosity sufficient to permit the flow of fluids in at least one direction through the material.

7. (Original) The article of claim 6 wherein said framework material substrate comprises a material compatible with a diamond deposition process.

8. (Original) The article of claim 6 wherein said framework material substrate comprises a material incompatible with a diamond deposition process coated with a material compatible with a diamond deposition process.

9. (Original) The article of claim 6 wherein said diamond has a thickness of at least about 2 microns.

10. (Original) The article of claim 6 wherein said diamond is fully coalesced.

11. (Original) The article of claim 6 wherein said article has a porosity of at least 100 voids/inch.

Claims 12 to 27 (Withdrawn)

28. (Previously Added) An article comprising:
a non-metallic reticulated unitary structure;
an interlayer coated on said non-metallic reticulated unitary structure;

a diamond layer deposited on said interlayer configured to form a contiguous open structure configured for fluid flow in more than one axis through said contiguous open structure.